Original/Duplicate/Triplicate

CONTRACT CERTIFICATE

8th RA Bill (For Other Works) Head of Account: P-3158

Division: EE Byatrayanapura Div Sub division: AEE Byatrayanapura Div

Bill Received No. .....Date..... Cash Book Voucher No..... dated.....

Scheduled Docted No.

Name of Work (as per sanctioned estimate): **Name of Work :- Improvements to Roads Drains Footpath and Parks in Ward No. 08 Kodigehalli (Package includes 11 Works of Rs 1010/-Lakhs) Package. Providing & Supplying For Childrens Play Equipments**

Name of Contractor and Full Address: **Sri.Pramodh M/s Karthik Enterprises, No. 123, Aiswaraya, 3rd Cross, Ramannaa Garden, Vidyaranyapura, Bangalore - 97**

Reference to Work order No. **BBMP/EE/BTP/WO/20?2017-18**

Certified that the measurement were taken by me on 17/6 to 30/7 ..... and recorded of pages: 35741-76 .....To ..... of measurement Book No: 3575/17-18 and that the work is satisfactorily executed.

Contractor : Officer-In-Charge of work

Certified that the measurements were taken by me on 17/6 to 30/7 ..... are found correct and the work is satisfactorily executed.

Certified that the quantities of materials shown in column 3 of Account II have been actually brought to site of the work and the contractor has not previously received any advance on this security. These materials are of an imperishable nature and are all required for immediate use on the work in connection with items for finished work have been agreed upon. A normal agreement signed and executed by the contractor is recorded in the office.

II Memorandum of Payment Sub-Division Officer 19/8/19

Assistant Executive Engineer
Kodigehalli Sub Division,
Yelahanka Zone, B.B.M.P.
Bangalore.

1) Total value of work done or supplies made as per account within	7,14,900-00
2) Deduct amount to be held in reserve being.....percent Rs.....	71500-00
3) Deduct amount to be held in Balance	63838-00
4) Deduct Payments:	63838-00
a) Amount of previous payment as in the office Cash Book Voucher No.....Dated .....S.D No.....	7200-00
Amount adjusted towards cash advance recovery of	71500-00
b) Payments cost store or other materials supplied	93680-00
Now made recovery of amount creditable to this/other work	
Amount paid on this bill Cheque/Cash	
5) Balance being unpaid value of work done held in reserve	371556-00
6) Deduct cash advance made on the Office Cash Book Voucher No..... dated..... less adjustments	
7) Net amount due to or from contractor	678344-00
Unadjusted items	
8) Advance to contractor for materials brought to site (as detailed) with Value of Government materials supplied	

Contractor's Signature

Received **Rs.**

by cash and by adjustment of Payment as per memorandum.

Witnesses:

1

2

Stamp

Dated..... Signature of Contractor

Paid by me by cheque No.....dated.....

Cast Rs.....dated.....

Initials of Officer making payment

(For use in the Office)

ಲೆಕ್ಕಶೀರ್ಷಿಕೆ P-3158

ಬಿಲ್ಲು ಮೊಬಲಗು ರೂ. 7,14,900-00

ಇದರಲ್ಲಿ ರೂ. 371556-00

ಮಾಡಿಬೇಕಾದದ್ದು ರೂ. 678344-00

FT/NEFT/RTGS ಮುಖಾಂತರ ಪಾವತಿಸಲಾಗಿದೆ

Executive Engineer

18/10

BRUHAT BANGALORE MAHANAGARA PALIKE

BYATARAYANAPURA DIVISION

Improvements to Roads,drains,footpath and park in ward no.08,Bytarayanapura Division (Package includes 11 Works of Rs 1010 lakhs)

1 Improvements to Road,Drain and Footpath in Main Road and abutting Cross Roads of Maruthinagara 2nd Stage in Ward No.8, Kodigehalli

Bill No : 8th Part Bill

BOQ Sl.No	Description of work	Unit	BOQ Qnty	Rate	Previous bill		Present bill		Total claimed up to this bill	
					Qnty	Amount	Qnty	Amount	Qnty	Amount
1	KSRRB M200-13.1. Dismantling of existing structures like culverts, Bridges, retaining walls and other structure comprising of masonry, cement concrete, wood work, steel work, including T&P and scaffolding wherever necessary, sorting the dismantled material, disposal of unserviceble material and stacking the serviceble material with all lifts complete as per specifications. II. By mechanical means, A. Cement concrete Grade M-15 & M-20 (P.No.137, I.No.18.20 of PW,P&IWTD SR 2016-17)	Cum	73.60	488.86	58.22	28461.43	15.38	7519.00	73.60	35980.43
2	Removing & Refixing Stone slabs of drains and Pointing in C.M(1:3) (P.No.25, I.No.5.33 of PW, P&IWTD SR 2016-17)	Sqm	10125.29	84.48	6801.69	574606.77	586.80	49573.00	7388.49	624179.77
3	Removing & Resetting of Footbath slab	Sqm	2231.91	138.94	1631.31	226654.21	599.94	83356.00	2231.25	310010.21
4	KSRRB M300-1. Earth work excavation by manual means in ordinary soil involving an average horizontal throw upto 2 meters and an average lift upto 0.5m, excavated surface levelled and sides neately dressed, the disposed earth to be levelled neatly after breaking of clods complete as per specification. MORTH / Chapter 3 (P.No.142, I.No.19.1 of PW, P&IWTD SR 2016-17)	Cum	16048.83	202.30	7079.60	1432202.75	886.68	179376.00	7966.28	1611578.75
5	KSRB 4-1.2: Providing and laying in position plain cement concrete of mix 1:3:6 with OPC cement @ 220kgs, with 40mm and down size graded granite metal coarse aggregates @ 0.892 cum and fine aggregates @ 0.465 cum, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation including cost of all materials, labour, HOM of machinery, curing complete as per specifications. Specification No. KBS 4.1, 4.2. (P.No.12, I.No.4.2 of PW,P&IWTD S.R 2016-17)	Cum	842.36	5608.71	727.11	4078125.57	80.48	451386.00	807.59	4529511.57
6	Providing laying plain/ reinforced cement concrete M20 Grade for Box Drain walls of thickness 10cm to 20cm including centering shuttering for work etc. complete as per approved drawing and design MORTH specification No. 1500, 1700, 2200. (P.No.265, I.No.37.59.2 of PW, P&IWTD SR 2016-17	Cum	1600.67	11568.66	1197.35	13851709.02	65.30	755428.00	1262.65	14607137.02
7	KSRB 4-6.1: Providing and removing centering, shuttering, strutting, propping etc., and removal of form work for foundations, footings, bases of columns for mass concrete including cost of all materials, labour complete as per specifications. Specifcation No. KBS 4.6.2 (P.No.15, I.No.4.28 of PW, P&IWTD SR 2016-17)	Sqm	76.55	256.76	67.65	17369.81		0.00	67.65	17369.81
8	KSRB 4-6.4: Providing and removing centering, shuttering, strutting, propping etc., and removal of form work for vertical surfa									

8	KSRB 4-6.4: Providing and removing centering, shuttering, strutting, propping etc., and removal of form work for vertical surfaces such as walls at any thickness, including attached pilasters, buttresses, plinth and string courses cost of all materials, labour complete as per specifications. Specification No.KBS 4.6.2 (P.No.15, I.No.4.31 of PW,P&IWTD SR 2016-17)	Sqm	**551.16**	**325.67**	387.40	126164.56		0.00	387.40	126164.56
9	Providing and laying cement concrete using 20mm and downsize granite coarse aggregates and fine aggregates of ready mixed concrete (RMC) for RCC works laid in 15cms thick layers and well compacted vibrating, curing, finishing with necessary cement mortar, with all lead and lifts etc., complete (exclusive of cpost of steel and fabricaton charges) Ready Mixed Cement Concrete M 20 for Raft foundation, Column, Footing, main and secondary beams. (P.No.18, I.No.4.48 of PW, P&IWTD SR 2016-17)	Cum	**238.30**	**6534.60**	125.28	818638.02		0.00	125.28	818638.02
10	KSRB - 4.9.2: Providing TMT steel Fe500 reinforcement for R.C.C work including straightening, cutting, bending, hooking, palcing in position, lapping and / or welding wherever required, tying with binding wire and anchoring to the adjoining memebrs wherever necessary complete as per design (laps, hooks and wastage shall not be measured and paid) cost of materials, labour, HOM of machinery complete as per specifications. Specification No. KBS 4.6.3. with all lead and lift , loading and unloading and allother incidental charges etc., complete as per specification and direction of the engineer-in-charge of the work	Tonne	**89.33**	**62300.47**	61.69	3843354.21	2.93	182540.00	64.62	4025894.21
11	Providing granite Slabs of Selected quality roughly dressed and fixed in cement mortor (1:6) including fixing curing etc,. Complete. 10cms thick (P.No.25, I.No.5.31.2 of PW, P&IWTD SR 2016-17)	Sqm	**3672.20**	**867.87**	2238.32	1942570.78		0.00	2238.32	1942570.78
12	KSRB 5-9 : Providing chamfering edges to stone slab 2.5 cms. wide as per specifications, (only chamfered length shall be recorded) KBS 5.1.13 (P.No.24, I.No.5.22 of PW,P&IWTD SR 2016-17)	Rmt	**10164.00**	**38.90**	10029.00	390128.10		0.00	10029.00	390128.10
13	Providing One line dressing to granite stone slab/ granite stone masonry as per speciication (P.No.23, I.No.5.17 of PW,P&IWTD SR 2016-17))	Sqm	**3079.50**	**605.78**	2263.05	1370910.43		0.00	2263.05	1370910.43
14	KSRB 5.2-3: Providing and constructing granite size stone masonry in foundation cement mortor 1:6, stone hammered dressed in courses not less than 20cms high, bond stones at 2m. apart in each course including cost of materaials, labour, curing complete as per specifications. Specifcation No. KBS 5.1.13. (P.No.23, I.No.5.6 of PW, P&IWTD S.R 2016-17)	Cum	**181.27**	**4653.92**	131.78	613296.84		0.00	131.78	613296.84
15	KSRB 5-11 : Providing and constructing load bearing wall with solid concrete blocks of size 400x150x200 mm having block density not lessthan 1800 kg/m3 and having a minimum average compressive strength 4.00 N/mm2 confirming to IS 2185 (Part) : 2005 and constructed with CM 1:4 , as per IS 2572:2005 including cost of all materials, labour charegs, scaffolding, curing complete as per specifications. KBS No.5.4(P.No.24, I.No.5.26.2 of PW, P&IWTD SR 2016-17)	Sqm	**584.00**	**1008.15**	528.94	533250.86		0.00	528.94	533250.86

16	KSRB 15.1.1 Providing flush pointing to square rubble, course or uncoursed stone masonry with cement mortar 1:3, 20mm deep, after raking joints to depth of 20mm nicely lining, including cost of materials, labour, curing complete as per specifications. (P.No.113, I.No.15.1 of PW, P&IWTD S.R 2016-17)	Sqm	**421.25**	**107.82**	260.07	28040.53		0.00	260.07	28040.53
17	KSRB 4-1.6: Providing and laying in position plain cement concrete of mix 1:2:4 with cement @ 240kgs, with 20mm and down size graded granite metal coarse aggregates @ 0.878 cum and fine aggregates @ 0.459 cum, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation and plinth, including cost of all materials, labour, HOM of machinery, curing complete as per specifications. Specification No. KBS 4.1, 4.2. (P.No.12, I.No.4.6 of PW,P&IWTD S.R 2016-17)	Cum	**124.71**	**6047.76**	71.64	433241.12		0.00	71.64	433241.12
18	KSRRB M400-19: Construction of Median and island above road level with approved material deposited from borrowpits, spread, sloped and compacted as per Clause 400.7 complete as per specifications. MORTH Specification No.407 (P.No154 of I.No.20.20 in PW,P&IWTD SR 2014-15)	Cum	**123.80**	**218.97**	38.58	8447.86		0.00	38.58	8447.86
19	Providing and laying/fixing cement base, precast, pre polished cement concrete, designer tiles 25mm thick conforming to IS 1237 heavy duty tiles for flooring, treads of steps and landing, laid on a bed of 12mm thick cement mortar 1:3 mis finished with flush pointing using white cement, including cost of materials, including cutting, griding the edge to half/full round wherever required, labour, curing complete as per specification.(P.No.109, I.No.14.62 of PW,P&IWTD S.R 2015-16)	Sqm	**1744.00**	**1205.99**	844.82	1018844.47		0.00	844.82	1018844.47
20	Providing and fixing RCC Precast cover slab of 100mm thick for drain in cement concrete M20 using graded granite jelly 20mm and down size with steel reinforcement, including form work, lift charges, curing and concrete finished surfaces on both sides etc, complete and as per drawing and the directions of Engineer in-charge. (Data Rate)	Sqm	**4131.99**	**1780.52**	2655.61	4728366.72	161.01	286682.00	2816.62	5015048.72
21	Providing and fixing RCC Precast cover slab of 250mm thick for drain in cement concrete M20 using graded granite jelly 20mm and down size with steel reinforcement, including form work, lift charges, curing and concrete finished surfaces on both sides etc, complete and as per drawing and the directions of Engineer in-charge. (Data Rate)	Sqm	**564.90**	**4995.53**	479.40	2394857.08		0.00	479.40	2394857.08
22	Providing and fixing Pre cast solid concrete kerb stones made out of CC 1:2:4 with top and bottom width 114 and 165mm respectively, 400mm high and 450mm in length finished with CM 1:3 plastering and finishing cutting, including formwork, curing, including cost of all materials, labour, hire charges of machinery, loading, unloading, lead and lift, transportation etc., complete (P.No.25, I.No.5.30 of PW,P&IWTD S.R 2016-17)	Nos	**6690.00**	**347.90**	5634.00	1960068.60		0.00	5634.00	1960068.60
23	Removing and Resetting of Kerb Stones (P.No.258, I.No.37.57 of PW,P&IWTD S.R 2015-16)	Rmt	**504.00**	**68.91**	311.00	21431.01		0.00	311.00	21431.01

24	KSRRB 800-1. Painting two coats after filling the surface with synthetic enamel paint in approved shades on new plastered concrete									

24	KSRRB 800-1. Painting two coats after filling the surface with synthetic enamel paint in approved shades on new plastered concrete surfaces, with materials, labour complete as per specifications. MORTH Chapter 8 (P.No.179, I.No. 24.1 of PW,P&IWTD SR 2015-16)	Sqm	**1592.75**	**66.69**	601.76	40131.04		0.00	601.76	40131.04
25	KSRRB M300-14. Excavation for roadwork in soil with hydraulic excavator of 0.90 cum bucket capacity including cutting and loading in tippers, trimming bottom and side slopes, in accordance with requirements of lines, grades and cross sections, and transporting to embankment location and complete as per specifications. MORTH Specification No.301 (P.No.143, I.No.19.14 of PW,P&IWTD S.R 2016-17)	Cum	**2389.63**	**162.28**	1679.83	272602.03	722.14	117189.00	2401.96	389791.03
26	KSRRB M 400-17, Providing, laying, spreading and compacting graded stone aggregate to wet mix macadam specification including premixing the Material with water at OMC in mechaniqal mix plant carriage ' of mixed Material by tipper to site, laying in uniform layers with paver in sub- base/ base course on well prepared surface and compacting with vibratory roller to achieve the desired density.complete as per specifications. MORTH Specification No. 406 (P.No.158, I.No.20.18 of PW,P&IWTD SR 2016-17)	Cum	**1375.36**	**1854.01**	1135.24	2104745.88	645.01	1195862.00	1780.25	3300607.88
27	KSRRB M 500-6, Providing and applying primer coat with SS bitumen emulsion on prepared surface of granular Base such as WBM WMM including clearing of road surface and spraying primer at the rate of 0.60 kglsqm using mechanical means complete as per specifications. As per MORTH specification clause No. 502 (P.No.161, I.No.21.6 of PW,P&IWTD SR 2016-17)	sqm	**5510.44**	**28.90**	4472.05	129242.26	2580.06	74564.00	7052.11	203806.26
28	KSRRB 500-2: Cleaning the existing black topped surface with brooms, soft brushes and finally dusting with old gunny bags and / or compressed air to receive bituminous treatement including cost of all materials, labour, HOM of machineries complete as per specifications. MORTH Spec, Chapter 5 (P.No.161, I.No.21.2 of PW,P&IWTD SR 2016-17)	Sqm	**51151.79**	**3.33**	30307.04	100922.44	4279.68	14251.00	34586.72	115173.44
29	KSRRB M500-7 : Providing and applying tack coat using 80/100 grade bitumen (VG10) on prepared black topped surfaces at 2.5 Kg per 10 sqm, heating bitumen in boiler fitted with spray set (excluding cleaning of road surface) including cost of all materials, labour, HOM of machineries complete as per specifications.MORTH / Chapter 5 (P.No.161 I.No.21.7 of PW,P&IWTD SR of 2016-17)	Sqm	**79163.61**	**12.23**	50703.15	620099.50	10149.04	124123.00	60852.19	744222.50

30	KSRRB M500-16. Providing and laying dense bituminous macadam 50-75mm compacted thickness with 4.5% VG-30 Bitumen using 40/60 TPH capacity H.M.P, using crushed aggregates of grading II, premixed with VG 30 grade bituminous binder and transporting the hot mix to work site, laying with mechanical paver to the required grade level and alignment rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MORTH table 500-10, complete in all respects complete as per specification MORTH specification No. 507 (P.No.163 I.No. 21.17.6 of PW,P&IWTD S.R 2016-17)	Cum	**1234.01**	**6748.01**	799.08	5392180.94	164.47	1109813.00	963.54	6501993.94
31	KSRRB M500-19. Providing and laying bituminous concrete 30-40 mm compacted thickness with VG30 Bitumen grade using 40-60 HMP using crushed aggregates of grading II, premixed with bituminous binder at 5.4% of mix and filler, transporting the hot mix to work site, laying with a mechanical paver finisher to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MoRT&H specification clause No. 500.9 complete in all respects as per specifications. MORTH Specification No. 509 (P.No.165 of I.No.21.22.6 in PW,P&IWTD S.R 2016-17)	Cum	**2297.71**	**7623.89**	1394.15	10628859.97	274.39	2091915.00	1668.54	12720774.97
32	KSRRB M800-13. Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorising glass beads at 250 gms per sqm area, thickness of 2.5mm is exclusive of surface applied glass beads as per IRC:35. The finished surface to be level, uniform and free from streaks and holes complete as per specifications. MORTH Specification No. 803.(P.No.185, I.No.24.15 of PW,P&IWTD SR 2016-17)	Sqm	**2694.58**	**569.10**	1150.48	654736.75	64.32	36602.00	1214.79	691338.75
33	Cement concrete pavement.Construction of un-reinforced plain cement concrete pavement, thickness as per design, over a prepared sub base with OPC cement or any other type as per clause 1051.2.2 with 25mm and down size graded granite metal coarse aggregates and fine aggregtes , with superplastisiser @3lts confirming to IS9103-1999 ReaffirmecF2008 , mixed in a concrete mixer of not less than 0.6 cum capacity and appropriate weigh batcher as per approved mix design, laid in approved fixed side form work (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the form work as per drawing). Spreading the concrete with shovels, rackers compacted using needle, screed and plate vibrator and finished in a continuous operation including provision of contraction, expansion, construction and longitudinal joints, joint filler, separation membrane, selant primer, joint sealant, admixtures as approved, curing compound, finishing to lines and grades as per drawing complete as per specifications. M20 (at 300Kg per cum coarse aggregate @ 0.69cum and fine aggregate @ 0.43cum) with all lead and lift , loading and unloading and allother incidental charges etc., complete as per specification and direction of the engineer-in-charge of the	Cum	**160.20**	**5776.55**	100.83	582460.37	46.28	267310.00	147.11	849770.37

	Vaccum de-watering with vaccum pump and suction mat and compaction with skin floater clubbed with floating disc including									

34	Vaccum de-watering with vaccum pump and suction mat and compaction with skin floater clubbed with floating disc including cost of generator, HOM of machinery, Screed Vibratory, Power Floater, blade and disc etc., with all lead and lift. with all lead and lift , loading and unloading and allother incidental charges etc., complete as per specification and direction of the engineer-in-charge of the work	Sqm	**1068.00**	**100.04**	625.86	62610.53	308.50	30862.00	934.36	93472.53
35	Providing Groove Cutting to Concrete Pavement for width 5mm to 10mm and depth 80mm to 100mm including cost of cutting Machine, generator & HOM of machinary, including cost of blade, coolant etc. including cleaning of grove and providing sand and hot bit	Rmt	**76.00**	**127.82**	0.00	0.00	30.85	3943.00	30.85	3943.00
36	Providing and fixing M S Grating	Sqm	**35.64**	**6970.04**	15.79	110039.51		0.00	15.79	110039.51
37	KSRRB M2600-5.(iv) Providing and filling joint sealing compound as per drawings and technical specifications with coarse sand and 6 per cent bitumen by weight complete as per specifications MORTH Specification No. 2605(P.No.243, I.No.31.5 of PW,P&IWTD S.R 2016-17)	Rmt	**2573.70**	**25.56**	822.00	21010.32		0.00	822.00	21010.32
38	Providing Rain Water Harvesting Pits for Drains	Each	**80.00**	**22020.60**	0.00	0.00		0.00	0.00	0.00
39	KSRRB M800-35. Supply and Installation of Moulded Shank Raised Pavement Markers made of polycarbonate and ABS(Acrylonitrile Butadiene Styrene) moulded body and reflective panels with micro prismatic lens capable of providing total internal reflection of the light entering the lens face and shall support a load of 16000kg tested in accordance to specification of category A of MORTH Circular No RW/NH/33023/10-97-Do III Dt 11.06.1997. The Height, width and length shall no exceed 50mm, 100mm, and 102mm and with minimum reflective area of 13 Sqcm on each side and the slope to the base shall be 35 degree. The strength of detachment of the integrated cylindrical shanks, (of diameter not less than 19mm and height not less than 30 mm) from the body is to be a minimum vakue of 500 kg. Fixing will be by drilling holes on the road for the shanks to go inside, without nails and using epoxy resin based adhesive as per manufacturer's recommendation and complete as directed by the engineer with 2 years warranty for the reflectivity from the original manufacturer is mandatory along with necessary test certification from the certified laboratory. Third party test certificates from a reputed test laboratory shall be submitted with seal and signature	Nos	**2092.20**	**376.80**	2147.00	808989.60		0.00	2147.00	808989.60

40	Manufacturing, Supply & Fixing of Retro- Reflection Road name sign board single Arrow size 1.98X0.9m size made out if wide angle cube corner micro prismatic grade sheeting confirming to IRC 67:2010 & type XI standards of ASTM D 4956-09 specifications and fixed over 2mm thick aluminium sheet back support frame of stainless stell supported by 30NB 1.2mm thick stainless steel pipe all around and 65NB 1.5mm thick pipe vertical post (AISI 202 Grade) firmly fixed to the ground by means of properly designed foundation with M15 grade cement concrete 30cmx30cmx45cm etc.complete. The information message shal be made out of cut out letters in blue colour transparent overlay film as per IRC 67-2010 Guidelines, 7 years pre-qualification warranty for retro reflective sheeting from the original sheeting manufacturer and a certied copy of three years outdoor exposure report from an independent test lab for the product offered shall be submitted by the contractor. The sign board shall be Retro-Reflective Type XL	Nos	**16.00**	**29622.95**	16.00	473967.20		0.00	16.00	473967.20
41	KSRRB M300-59.1. Loosening of the ground upto a level of 500mm below the subgrade level, watered, graded and compacted in layers to meet requirement of Table 300-2 for subgrade construction complete as per specifications. Case-I:Compacting original ground supporting subgrade.(which includes watering charges & compaction by vibratory roller) MORTH Specification No. 305.3.4	Cum	**1845.00**	**57.80**	126.38	7304.48		0.00	126.38	7304.48
42	KSRRB 300-Compaction KSRRB 300-58. Compaction of original ground with maximum of 6 passes of 8 to 10 tonnes power roller including filling in depression occuring during rolling including cost of all labour, HOM of machinery complete as per specifications. MORTH / Chapter 3	Sqm	**4200.00**	**5.56**	421.25	2342.15		0.00	421.25	2342.15
43	KSRRB 500-3. Scarifying existing stone metal layer upto 75mm thick along with their bituminous surface, picking up scarified materials and stacking of old serviceable materials with lead of 100 m. sequential spreading of the salvaged aggregates with fresh aggregates on prepared base and consolidating as per water bound macadam specifications including cost of all labour, HOM of machineries complete as per specifications. MORTH specification clause 501	Sqm	**325.00**	**96.70**	0.00	0.00		0.00	0.00	0.00
44	KSRRB M300- Construction of Embankment with Material Gravel/ Murrum. KSRRB M300-53. Construction of embankment with approved material Gravel/Murrum with all lifts and leads, transporting to site, spreading, grading to required slope and compacting to meet requirement Table 300- 2 complete as per specifications.(Including cost of gravel / murrum, watering charges & compaction by vibratory roller to 95% of proctors density) MORTH Specification No. 305	Cum	**2229.63**	**335.68**	0.00	0.00		0.00	0.00	0.00

	Providing granite Slabs of Selected									

45	Providing granite Slabs of Selected quality roughly dressed and fixed in cement mortor (1:6) including fixing curing etc,. Complete. 7.5cms thick (P.No.25, I.No.5.31.1 of PW, P&IWTD SR 2016-17)	Sqm	**577.08**	**698.03**	463.32	323411.26		0.00	463.32	323411.26
46	Providing and Making Precast Seating Arrengment including Excavation Laying PCC M15, Providing Laying M20 Concrete for Pedestal and Seating slab, fixing of seating slab including all necessary bolts and nuts etc, complete and as per dirction of engineer in charge (Data Rate)	Nos	**45.00**	**2614.16**	0.00	0.00		0.00	0.00	0.00
47	Earth work for lowering and levelling the ground other than foundation works by mechanical means upto 3.00 depth, including providing shoring and strutting, removal of stumps and other deleterious matter, dressing of sides and bottom, filling back the excavation earth to the extent required including the cost of labour & HOM of machineries, as per drawing and technical specification.	Cum	**429.38**	**75.58**	90.99	6877.02		0.00	90.99	6877.02
48	KSRRB M200-29. Dismantling of barbed wire fencing / wire mesh fencing including posts, foundation concrete, back filling of pit by manual means including disposal of dismantled material with all lifts and stacking serviceable material and unserviceable material separately complete as per specifications. MORTH Specification No. 202	Sqm	**40.00**	**46.68**	0.00	0.00		0.00	0.00	0.00
49	Supplying and fixing M.S. Rectangular poles made out of 2 equal angles of 65x65x6 mm welded together and fixed in CC (1:2:4) WITH 2 NOS 16mm dia M.S. hold fast rods each of length 25 cms. Including cost of all materials cutting, bending scaffolding wherever necessary, nicely finishing the welded joints with all lead lifts and as per the directions of the Engineerin - charge of the work and including providing 2 coats of approved quality paint over one coat of shop painting (excluding cost of earthwork and concrete)	Mtr	**40.00**	**910.33**	0.00	0.00		0.00	0.00	0.00
50	Providing chain link fencing 50mm size of 8 guage properly stretched between existing rectangular poles and fixed with suitable bolts & nuts, the free ends shall be welded to the pole and block pipe at top and bottom as required including cost of all materials, labour, lead and lifts and as per the directions of the Engineer-in-charge of work including two coats of approved quality paint over one coat of shop paint	Sqm	**84.00**	**732.49**	0.00	0.00		0.00	0.00	0.00
51	Providing and fixing M.S. Block pipe of 38mm dia, of heavy guage of 14 including removing the bends, cutting the pipe, and fixing pipe in between the existing two verticle poles (M.S. rectangular poles) and spot welding the chain link with M.S. block pipe including cost of all materials wastage in cutting, and scaffolding wherever necessary with all lead and lift as directed by the Engineer-in-charge of work etc., complete including two coats of approved quality paint over one coat of shop paint.	mtr	**80.00**	**360.13**	0.00	0.00		0.00	0.00	0.00

52	Providing and fixing M.S. Gate as per Chief Architect Drawing, using 50mm x 50mm 14 guage M.S. hollow pipe frame work bent to ornamental shape as shown in the drawing and 35mm x 6mm and 16 x 16mm Square rods for verticals alternatively spaced at 4cms c/c in two halves and 40mmx6mm M.S. flats for horizontal member and at the top cast iron spikes are provided at alternate vertical members asshown in the drawing etc., complete. All the steel surface should be thoroughly cleaned free of rust and painted with anti corrosive paint (shop paint) etc., complete. The work includes cost of all materials, labour charges for all items of work, hire charges for welding, cutting and grinding equipment, and electricity charges, with lead and lift, loading and unloading charges, etc., complete as per specifiocation.	Sqm	**24.00**	**3395.68**	0.00	0.00		0.00	0.00	0.00
53	KSRRB M800-7. Painting:-Providing and applying two coats of ready mix paint of approved brand after through cleaning of surface to give an even shade complete as per specifications. MORTH Specification No. 803 - Painting on Steel Surface	Sqm	**514.00**	**61.13**	0.00	0.00		0.00	0.00	0.00
54	KSRB-4-1.7 : Providing and laying in position plain cement concrete of mix 1:3:6 with OPC cement @ 220kgs, with 20mm and down size graded granite metal coarse aggregates @0.84cum and fine aggregtes @ 0.56cum, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation, plinth and cills, ncluding cost of all materials, labour, HOM of machinery, curing complete as per specifications. Specification No. KBS 4.1, 4.2	Cum	**40.98**	**5871.03**	40.69	238892.21		0.00	40.69	238892.21
55	KSRRB 2100.-2.2: Earthwork in excavation for foundations of structures as per drawings and techincal specifications including, setting out , construction of shoring & bracing , removal of stumps and other deleterious matter , dressing of sides and bottom and backfilling with approved material complete as per specifications .B. Machanical means (i) Depth - 3.0 Mtr to 6.0 m depth MORTH specification - No - 304(P.No.216, I.No.27.5 of PW,P&IWTD S.R 2016-17))	cum	**1029.00**	**167.15**	735.31	122906.65		0.00	735.31	122906.65
56	KSRB 2.8 : Providing and Filling in foundation with granite / trap broken metal 100mm. and down size, with approved sand including hand packing, ramming, watering, including cost of all materials and labour with all lead and lift, complete as per specifications, specification. No. KBS (P.No.6, I.No.2.15 of PW,P&IWTD S.R 2016-17))	cum	**65.55**	**2394.08**	26.25	62844.60		0.00	26.25	62844.60
57	KSRRB M2100-13. Plain / Reinforced Cement Concrete M15 with OPC cement @ 240kgs, with 40mm and down size graded granite metal coarse aggregates @0.84cum and fine aggregates @ 0.56cum in Open Foundation complete as per Drawing and Technical Specifications MORTH Specification No. 1500,1700 & 2100.(P.No.218, I.No.27.24 of PW,P&IWTD S.R 2016-17)	Cum	**41.10**	**6648.84**	35.88	238527.14		0.00	35.88	238527.14

	Diversion of water course by providing C.ff...									

	complete as per Drawing and Technical Specification No. 1500,1700 & 2100.(P.No.218, I.No.27.24 of PW,P&IWTD S.R 2016-17)									

58	Diversion of water course by providing Coffer dams or bunds or islands as may be necessary for piers and abutments foundations, bailing out or pumping water during excavation and until completion etc., complete.(1.50 mtrs depth below LWL.)(P.No.264, I.No.37.41.1 of PW,P&IWTD S.R 2016-17)	Cum	**146.25**	**303.51**	78.75	23901.41		0.00	78.75	23901.41
59	Diversion of water course by providing Coffer dams or bunds or islands as may be necessary for piers and abutments foundations, bailing out or pumping water during excavation and until completion etc., complete. - - beyond 1.50 mtrs depth upto & including 3m depth.	Cum	**52.50**	**373.72**	0.00	0.00		0.00	0.00	0.00
60	KSRRB M800-43. Installation of a steel portable barricade with horizontal rail 300 mm wide, 2.5 m in length fitted on a 'A' frame made with 45 x 45 x 5 mm angle iron section, 1.5 m in height, horizontal rail painted (2 coats) with yellow and white stripes, 150 mm in width at an angle of 45°, 'A' frame painted with 2 coats of yellow paint, complete as per IRC:SP:55-2001 complete as per specifications.(P.No.190, Item no 24.44 of PW,P&IWTD S.R 2016-17))	Each	**20.80**	**2686.26**	20.00	53725.20		0.00	20.00	53725.20
61	KSRRB M2100-20.2. Plain / Reinforced Cement Concrete in Open Foundation with OPC cement design mix M35 @ 390kgs, with 20mm and down size graded granite metal coarse aggregates @0.68cum and fine aggregates @ 0.45cum, with superplastisiser @3lts confirming to IS9103-1999 Reaffirmed-2008. case II : With Batching Plant, Transit Mixer and Concrete Pump MORTH Specification No. 1500,1700 & 2100(P.No.220, I.No.27.37 of PW,P&IWTD S.R 2016-17)	Cum	**77.03**	**7305.68**	20.48	149583.80		0.00	20.48	149583.80
62	KSRRB M2200-5.19. Design mix M35 with OPC cement @ 390kgs,with 20mm and down size graded granite metal coarse aggregates @0.68cum and fine aggregates @ 0.45cum, with superplastisiser @3lts confirming to IS9103-1999 Reaffirmed-2008 - ii) For height, upto 5m,(P.No.224, I.No.28.7.18 of PW,P&IWTD S.R S.R 2016-17)	Cum	**140.94**	**8229.79**	18.11	149062.07		0.00	18.11	149062.07
63	KSRRB M2300-8.1. Furnishing and Placing Reinforced/ Prestressed cement concrete in super-structure as per drawing and Technical Specification complete as per specifications. D. RCC / PSC with OPC cement design mix M35 @ 390kgs, with 20mm and down size graded granite metal coarse aggregates @0.68cum and fine aggregates @ 0.45cum, with superplastisiser @3lts confirming to IS9103-1999 Reaffirmed-2008, Case - II : Using Batching Plant, Transit Mixer & Concrete Pump MORTH Specification No. 1500,1600 & 1700-Height upto 5 m(P.No.233 , I.No.29.16.1 of PW,P&IWTD S.R S.R 2016-17)	Cum	**40.46**	**8324.92**	36.54	304150.95		0.00	36.54	304150.95
64	KSRRB M2200 -6 Supplying , fitting and placingTMT bar Fe 550 reinforcement in sub-structure complete as per drawing & technical specification complete as per the specification . MORTH Specification No.1600 & 2200(P.No.225 , I.No.28.8.3 of PW,P&IWTD S.R 2016-17)	MT	**23.75**	**62834.96**	12.22	767821.24		0.00	12.22	767821.24

65	KSRRB M2300 -14. supplying , fitting and placing TMT bar Fe 550 reinforcement in super-structure complete as per as per drawing & technical specification complete as per the specification . MORTH Specification No.1600.(P.No.238 , I.No.29.29.3 of PW,P&IWTD S.R 2016-17))	MT	**5.46**	**63844.01**	2.29	145960.25		0.00	2.29	145960.25
66	KSSRB M220 - 8. Providing weep holes in Brick masnory / Plain / Reinforced concrete abutment, wing wall / return wall with 100mm dia AC pipe, extending through the full width of the structure with slope of 1V:20H towards drawing foce. Complete as per drawing and Technical specifications complete as per specifications. MORTH Specification No. 2706 & 2200 (P.No.225, I.No.28.10 of PW,P&IWTD S.R 2016-17))	Nos/Mtr	**82.50**	**190.26**	52.50	9988.65		0.00	52.50	9988.65
67	KSRRB M2700-4. Providing, fitting and fixing mild steel railing complete as per drawing and Technical Specification complete as per specifications MORTH Specification No. 2703.2, 1900	Cum	**7.20**	**3292.14**	0.00	0.00		0.00	0.00	0.00
68	KSRRB M2700-5. Drainage Spouts complete as per drawing and Technical specification complete as per specifications MORTH Specification No. 2705	Cum	**6.00**	**1862.94**	0.00	0.00		0.00	0.00	0.00
69	KSRRB 2200-9 Filter Media Providing & laying of Filter media With Granular meterails / Stone crushed aggregates satisfying the requirement laid down in clause 2500.4.2.2 of MORTH Specification to a thickness on not less than 600 mm width smaller size towards the soil & bigger size towards wall & provided over the entire surface behind Abutment, Wing wall & return wall to the full height compacted to a firm condition complete as per Drawing & Techincal Specifications. Complete as per specification MORTH Specification No. 710.14of IRC: 78& 2200(P.No.225, I.No.28.13 of PW,P&IWTD 2016-17))	Cum	**137.70**	**1467.70**	34.65	50855.81		0.00	34.65	50855.81
70	KSRRB 2200-8.1 Back filling behind Abutment, Wing wall & return wall to the full height compacted to a firm condition complete as per Drawing & Techincal Specifications. Complete as per specification A. Granular Material MORTH Specification No. 710.14of IRC: 78& 2200.With all Leads & Lift etc & as per the direction of the Engineer Incharge of the Work.(P.No.225, I.No.28.11 of PW,P&IWTD S.R 2016-17))	Cum	**405.00**	**593.42**	86.63	51405.01		0.00	86.63	51405.01
71	KSRRB M2500- Flexible Apron KSRRB M2500-11. Construction of flexible apron 1 m thick comprising of loose stone boulders weighing not less than 40 kg beyond curtain wall complete as per specifications MORTH Specification No. 2507.2	Cum	**60.00**	**1634.18**	0.00	0.00		0.00	0.00	0.00
72	KSRRB M2500-5.1. Providing and laying Flooring complete as per drawing and Technical specifications laid over cement concrete bedding complete as per specifications. A. Rubble stone laid in cement mortar 1:3 MORTH Specification No. 2505	Cum	**18.00**	**5165.28**	0.00	0.00		0.00	0.00	0.00
73	KSRRB M2500-10.Curtain wall complete as per drawing and Technical Specifications. B. Cement Concrete Grade M-15 MORTH Specification No. 2507.2	Cum	**18.00**	**5903.66**	0.00	0.00		0.00	0.00	0.00

	KSRRB M200-15.2. Dismantling of existing structures like culverts, Bridges, retaining walls and other structure comprising of masonry cement concrete, wood work, steel									

73	Specifications. B. Cement Concrete Grade M-15 MORTH Specifications 2507.2									

74	KSRRB M200-15.2. Dismantling of existing structures like culverts, Bridges, retaining walls and other structure comprising of masonry, cement concrete, wood work, steel work, including T&P and scaffolding wherever necessary, sorting the dismantled material, disposal of unserviceble material and stacking the serviceble material with all lifts complete as per specifications. iii) Dismantling Stone Masonry B. Rubble Stone maonry in cement mortar (P.No.138. I.No.18.27 of PW.P&IWTD SR 2016-17)	Cum	**60.18**	**376.59**	47.25	17793.88		0.00	47.25	17793.88
75	KSRRB M400-6.2. Construction of granular sub-base by providing close graded material, mixing in a mechaical mix plant at OMC, carriage of mixed material to work site, spreading in uniform layers with motor grader on prepared surface and compacting with vibratory power roller to achieve the desired density, complete as per specifications. A. Plant Mix Method. - For Grading II Material	Cum	**81.00**	**1746.19**	0.00	0.00		0.00	0.00	0.00
76	Providing granite slabs of selected quality roughly dressed havinf a size of 7.5 cms thick and fixed in cement mortar (1:6) including fixing curing ete., complete.	Cum	**242.73**	**698.03**	0.00	0.00		0.00	0.00	0.00
77	Add cost of Waste Plastic @ 8% of Bitumen Weight	kgs	**19315.30**	**28.31**	7606.54	215341.19	3095.11	87623.00	10701.65	302964.19
	SUB-ESTIMATE (Providing & Supplying For Childrens Play Equipments)									
1	Supply & Fixing of Pull Down chalenger Metal : All Tubular steel f2.5mm thichness are galvanized and zinc dipped. Joints are Robotic Welded. All welded joints are scalloped as necessary and welded to an approved MIG process. All welds are dressed off removing all sharp edges & burrs. Zinc Primer paint is applied at all the welding paints prior to finishing. All metal parts are powder coated using AKZO Nobel - Great Wall Powder to	Each	**1.00**	**240000.00**	1.00	240000.00	0.00	0.00	1.00	240000.00
2	Supply & Fixing of Seated Chest Press : All Tubular steel of 2.5mm thickness are galvanized and zinc dipped. Joints are Robotic Welded. All welded joints are scalloped as necessary and welded to an approved MIG process. All welds are dressed off removing all sharp edges & burrs. Zinc Primer paint is applied at all the welding paints prior to finishing. All meta are powder coated using AKZO Nobel - Great Wall Powder to the	Each	**1.00**	**230000.00**	1.00	230000.00	0.00	0.00	1.00	230000.00
3	Supply & Fixing of Elliptical Cross Trainer: All Tubular steel of 2.5mm thichness are galvanized and zinc dipped. Joints are Robotic Welded. All welded joints are scalloped as necessary and welded to an approved MIG process. All welds are dressed off removing all Sharp edges & burrs. Zinc Primer paint is applied at all the welding paints prior to finishing. All metal parts are powder coated using AKZO Nobel - Great Wall Powder to	Each	**1.00**	**140000.00**	1.00	140000.00	0.00	0.00	1.00	140000.00
4	Supply & Fixing of Rider Metal All Tubular steel of 2.5mm thichness are galvanized and zinc dipped. Joints are Robotic Welded . All welded joints are scalloped as necessary and welded to an approved MIG process . All welds are dressed off removing all sharp edges & burrs. Zinc Primer paint is applied at all the welding paints prior to finishing. All metal parts are powder coated using AKZO Nobel - Great Wall Powder to the thickness of	Each	**1.00**	**90000.00**	1.00	90000.00	0.00	0.00	1.00	90000.00

5	Supply & Fixing of Bicycle. Metal : All Tubular steel of 2.5mm thichness are galvanized and zinc dipped. Joints are Robotic Welded . All welded joints are scalloped as necessary and welded to an approved MIG process . All welds are dressed off removing all sharp edges & burrs. Zinc Primer paint is applied at all the welding paints prior to finishing All metal parts are powder coated using AKZO Nobel - Great Wall Powder to the	Each	**1.00**	**125000.00**	1.00	125000.00	0.00	0.00	1.00	125000.00
6	Supply & Fixing of Arm & Pedal Bike Metal : All Tubular steel of 2.5mm thichness are galvanized and zinc dipped . Joints are Robotic Welded . All welded joints are scalloped as necessary and welded to an approved MIG process. All welds are dressed off removing all sharp edges & burrs. Zinc Primer paint is applied at all the welding paints prior to finishing All metal parts are powder coated using AKZO Nobel - Great Wall Powder to	Each	**1.00**	**170000.00**	1.00	170000.00	0.00	0.00	1.00	170000.00
7	Supply & Fixing of HD Sit Up Station Metal: All Tubular steel of 2.5mm thichness are galvanized and zinc dipped. Joint are Robotic Welded. All welded joints are scalloped as necessary and welded to an approved MIG process. All welds are dressed off removing all sharp edges & burrs. Zinc Primer paint is applied at all the welding paints prior to finishing. All metal parts are powder coated using AKZO Nobel -Great Wall Powder to	Each	**1.00**	**125000.00**	1.00	125000.00	0.00	0.00	1.00	125000.00
8	Supply & Fixing of HD mini Ski Metal: All Tubular steel of 2.5mm thichness are galvanized and zinc dipped. Joints are Robotic Welded. All welded joints are scalloped as necessary and welded to an approved MIG process . All welds are dressed off removing all sharp edges & burrs. Zinc Primer paint is applied at all the welding paints prior to finishing. All mêtal parts are powder coated using AKZO Nobel - Great Wall Powder to	Each	**1.00**	**160000.00**	1.00	160000.00	0.00	0.00	1.00	160000.00
9	Supply & Fixing of HD Squat Pushing Metal : All Tubular steel of 2.5mm thichness are galvanized and zinc dipped . Joints are Robotic Welded . All welded joints are scalloped as necessary and welded to an approved MIG process . All welds are dressed off removing all sharp edges & burrs. Zinc Primer paint is applied at all the welding paints prior to finishing. All mêtal parts are powder coated using AKZO Nobel - Great Wall Powder to	Each	**1.00**	**215000.00**	1.00	215000.00	0.00	0.00	1.00	215000.00
10	Providing children play standred spring duck Equipment : The system consists of and FRP coloured duck rocking on 10mm dia heavy duty coiled spring including fixing the play equipments in CC 1:2:4, curing etc., complete with all lead , lift, loading , unloading and any other incidental charges and as per the drawing and specifiactins and direction of he engineer in charge of the work.	Each	**1.00**	**36000.00**	1.00	36000.00	0.00	0.00	1.00	36000.00
11	Providing Children play Standerd Duck Wheel Equipment : This is a Micro Revolver made up of an 4 feet diameter platform with 1.5mm thick Aluminium Chequered plate supported well two Nos of ball bearings. 2 nos LDPE ducks and 1 No of plastic sheet flat seats, all supported to vertical pillars of size 25mm NB pipes. All pipes are of ISI grades. All the pipes are painted with two coats of super set paint over a coat of	Each	**1.00**	**68000.00**	1.00	68000.00	0.00	0.00	1.00	68000.00

12	Providing children play two seater standred swing equipment : This swing consist of 2 nos seat of powder coated of size 500mmx250mm x16SWG supported by M S chains of length 18mtrs each seat is suspended by 1 lines of chains. The chains are supported by circular housing with bearing from which the chain is suspended. The main beam is of 50mm MS 'A' class pipe. Size of MS chain 30mm X20mm X5mm thick.	Each	**1.00**	**56000.00**	1.00	56000.00	0.00	0.00	1.00	56000.00
13	Providing and fixing standard slide of approved quality and design as per the drawing and specification and direction of the Engineer in chrage of the work.	Each	**1.00**	**56000.00**	1.00	56000.00	0.00	0.00	1.00	56000.00
14	Providing fabricating and fixing Multiplay Special slider system consisting of the platform with 25mm dia Ms pipe & Aluminium chequered plates of size 3'x3 ft 7 ft height from ground level with 4 legs made out of 65 mm dia g.I pipes fixed in cement concrete 1:2:4. the platform is to be fitted with FRP wave slide , spiral slide and standard slide with vertical ladder on once side each with GI sheet steps of thred 4"	Each	**0.00**	**520000.00**	0.00	0.00	0.00	0.00	0.00	0.00
15	Lead for disposal of debris shall be payable at carriage rates by mechanical means including loading and unloading. From10.00 to 13.30 kms (Pg132, 1-2)	Cum	**162.00**	**110.56**	162.00	17911.00	0.00	0.00	162.00	17911.00
						67114945.03		**7149917.00**		**74264862.03**
	Amount In Words			**Rupees Seventy One Lakh Forty Nine Thousand Nine Hundred Seventeen Only**						

Certificate:

1 Certified that the contractor has done the work satisfactorly
2 Certified that the debris has been removed from the site
3 Certified that the No dues from the contractor
4 Certified that the above item of the work were not claimed in any other bill

TEJUS CONSULTANTS

Assistant Executive Engineer
Kodigehalli Sub Division,
Yelahanka Zone, B.B.M.P.
Bangalore.